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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Shuhei Kurata

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NEW YORK, NY 10016

EXAMINER

CRAIG, PAULA L

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/530,243	Applicant(s) KURATA ET AL.	
	Examiner PAULA L. CRAIG	Art Unit 3761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,8,12-24 and 26-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,8,12-24 and 26-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed April 9, 2008 have been considered but are moot in view of the new grounds of rejection.

Claim Objections

2. Claims 1 and 8 are objected to because of the following informalities: In Claim 1, line 15, and Claim 8, line 15, "approximately linear" should be "linear" due to lack of antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1, 8, 12-24, and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Popp (US 6,635,041) in view of U.S. Patent No. 5,527,302 to Endres et al.

5. For Claim 1, Popp teaches a disposable wearing article including opposite right and left sides configured for fitting to legs of a wearer, and right and left leg elastics secured in proximity to the right and left sides of the disposable wearing article (the right and left leg elastics are the outermost leg elastic members 58 on each side, closest to the leg openings 52; Figs. 1-9, col. 1, lines 6-14, and col. 6, line 6 to col. 7, line 8). An absorbent body is disposed inwardly from the right and left leg elastics, the absorbent body having opposite front and rear ends and opposite right and left sides extending between the ends (absorbent body includes absorbent assembly 44; Fig. 3, col. 6, lines 31-51). Popp teaches right and left primary elastic members bonded in their stretched state to at least one cover sheet that is attached to a back portion of the absorbent body (cover sheet is bodyside liner 42 and outer cover 40; primary elastic members include the innermost leg elastic members 58 on each side, furthest from leg openings 52; Figs. 1-9, col. 6, line 31 to col. 7, line 38, col. 8, line 12 to col. 10, line 36, col. 12, lines 12-16). Each of the primary elastic members has a linear portion in an approximately laterally central zone of the back portion inwardly of the opposite first and second sides of the absorbent body; each primary elastic member keeps a constant distance from the other primary elastic member (the linear portion is near dotted line 203; Figs. 2-6, col. 6, lines 6-30, col. 8, lines 32-65). A central zone of a skin-side surface of the absorbent body between the linear portions of the right and left primary elastic members is fully

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capable of defining a linear raised portion by an action of a contractile force in the linear portions independent of any forces exerted by a wearer (right and left primary elastic members are the innermost leg elastic members 58 on each side; col. 6, line 52 to col. 8, line 65; note Figs. 1 and 2 show a raised portion extending outward away from the wearer's body between the left and right elastic members 58). Popp teaches each of the primary elastic members having at least one divergent portion extending from the approximately linear portion towards at least one of the front and rear ends of the absorbent body and outwardly to define at least one divergent pattern (innermost leg elastic members 58 on each side diverge at their ends; Figs. 2-6, col. 6, lines 6-30, col. 8, lines 32-65, col. 13, lines 17-65). A divergent zone of the skin-side surface of the absorbent body in the divergent pattern is fully capable of defining a divergent raised portion by an action of a contractile force in the divergent portions of the primary elastic members (Figs. 1-6, col. 6, lines 6-30, col. 8, lines 32-65, col. 13, lines 17-65). The divergent raised portion is contiguous to the linear raised portion (Figs. 1-6, col. 6, lines 6-30, col. 8, lines 32-65). Popp teaches the disposable wearing article having a suitable length, such as about 54 centimeters or 540 mm (col. 13, lines 38-53). Fig. 3 of Popp suggests that the width of the wearing article in the crotch region is about one-fifth of the overall length of the article, which suggests that the width of the article in the crotch region is about 11 cm or 110 mm (col. 13, lines 38-53). Popp teaches that panels 34 and 134 have lengths of about 10-15 centimeters or 100-150 mm (Fig. 3, col. 13, lines 38-53). Fig. 3 of Popp suggests that the lengths of panels 34 and 134 are approximately the same as the width of the article in the crotch region; this suggests

that the width of the crotch region is about 10-15 centimeters or about 100-150 mm (col. 13, lines 38-53). Fig. 3 of Popp also suggests that the length of the linear portion of the primary elastic members is about 30-40% of the overall length of the article; this suggests that the length of the linear portion is about 16-22 cm or 160-220 mm (col. 13, lines 38-53). Popp teaches that the three elastic members 58 may have a width of about 0.05 inch to about 3 inches, which is about 1 mm to about 76 mm (col. 10, lines 36-42). Popp does not expressly teach the linear portion extending linearly in a front-to-rear direction for a distance of about 100-350 mm, nor the constant distance between the primary elastic members being in a range of about 5-50 mm. In an article having a width in the crotch region of about 100-150 mm, the width of 1-76 mm given for the elastic members of Popp suggests that the distance between the right and left primary elastic members may vary over a wide range; that range is likely to include a distance of about 5-50 mm (Fig. 3, col. 10, lines 36-42, col. 13, lines 38-53). Endres teaches that the length of a diaper is about 14-18 inches or 360-460 mm, while the overall width of the absorbent structure is about 4-11 inches or 100-280 mm (Figs 1-2, col. 2, lines 45-67; note that W_{AO} is approximately equal to the overall width of the diaper at the crotch region). This confirms that the width of the article in the crotch region estimated above for Popp is reasonable. Endres also confirms that it is well known to modify the size of a diaper or other disposable wearing article (col. 2, lines 45-53). Applicant's specification does not disclose that the claimed dimensions serve any stated purpose or solves any particular problem; on the contrary, Applicant's specification indicates that at least some of these dimensions are variable according to the size of the wearer (see

specification, paragraphs 51 and 88). See *In re Rose*, 105 USPQ 237 (CCPA 1955). In light of the dimensions taught by Popp and Endres, it would have been obvious to one of ordinary skill in the art to modify Popp to include suitable dimensions for the length of the linear portion and the distance between the primary elastic members. In addition, the distance over which the linear portion extends and the distance between the primary elastic members are result effective variables, since they affect the fit and would be expected to vary with the size of the wearer. The discovery of an optimum value of a result effective variable is ordinarily within the ordinary skill in the art. See *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

6. For Claim 8, Popp teaches a disposable wearing article including a cover sheet having opposite front and rear ends and opposite first and second sides extending between the ends (Figs. 1-9, col. 1, lines 6-14, and col. 6, lines 6-52). An absorbent body having opposite front and rear ends and opposite first and second sides extending between the ends is attached on a skin-side surface of the cover sheet (absorbent body includes absorbent assembly 44; Fig. 3, col. 6, lines 31-51, col. 12, lines 12-20). Popp teaches right and left primary elastic members bonded in their stretched state to at least one cover sheet (cover sheet is bodyside liner 42 and outer cover 40; primary elastic members include the innermost leg elastic members 58 on each side, furthest from leg openings 52; Figs. 1-9, col. 6, line 31 to col. 7, line 38, col. 8, line 12 to col. 10, line 36, col. 12, lines 12-16). The absorbent body 44 is free of elastic members between the primary elastic members (Figs. 3-6, col. 6, line 31 to col. 7, line 8, col. 8, lines 32-65). Each of the primary elastic members has a linear portion in an approximately laterally

central zone of the cover sheet inwardly of the opposite first and second sides of the absorbent body; each primary elastic member keeps a constant distance from the other primary elastic member (the linear portion is near dotted line 203; Figs. 2-6, col. 6, lines 6-30, col. 8, lines 32-65). A central zone of a skin-side surface of the cover sheet between the linear portions of the right and left primary elastic members is fully capable of defining a linear raised portion by an action of a contractile force in the linear portions independent of any forces exerted by a wearer (right and left primary elastic members are the innermost leg elastic members 58 on each side; col. 6, line 52 to col. 8, line 65; note Figs. 1 and 2 show a raised portion extending outward away from the wearer's body between the left and right elastic members 58). Popp teaches each of the primary elastic members having at least one divergent portion extending from the approximately linear portion towards at least one of the front and rear ends of the absorbent body and outwardly to define at least one divergent pattern (innermost leg elastic members 58 on each side diverge at their ends; Figs. 2-6, col. 6, lines 6-30, col. 8, lines 32-65, col. 13, lines 17-65). A divergent zone of the skin-side surface of the absorbent body in the divergent pattern is fully capable of defining a divergent raised portion by an action of a contractile force in the divergent portions of the primary elastic members (divergent raised portion includes the area between the innermost leg elastic members 58 closest to edges 38 and 39; Figs. 1-6, col. 6, lines 6-30, col. 8, lines 32-65). The divergent raised portion is contiguous to the linear raised portion (Figs. 1-6, col. 6, lines 6-30, col. 8, lines 32-65). Popp teaches the disposable wearing article having a suitable length, such as about 54 centimeters or 540 mm (col. 13, lines 38-53). Fig. 3 of Popp suggests

that the width of the wearing article in the crotch region is about one-fifth of the overall length of the article, which suggests that the width of the article in the crotch region is about 11 cm or 110 mm (col. 13, lines 38-53). Popp teaches that panels 34 and 134 have lengths of about 10-15 centimeters or 100-150 mm (Fig. 3, col. 13, lines 38-53). Fig. 3 of Popp suggests that the lengths of panels 34 and 134 are approximately the same as the width of the article in the crotch region; this suggests that the width of the crotch region is about 10-15 centimeters or about 100-150 mm (col. 13, lines 38-53). Fig. 3 of Popp also suggests that the length of the linear portion of the primary elastic members is about 30-40% of the overall length of the article; this suggests that the length of the linear portion is about 16-22 cm or 160-220 mm (col. 13, lines 38-53). Popp teaches that the three elastic members 58 may have a width of about 0.05 inch to about 3 inches, which is about 1 mm to about 76 mm (col. 10, lines 36-42). Popp does not expressly teach the linear portion extending linearly in a front-to-rear direction for a distance of 100-350 mm, nor the constant distance between the primary elastic members being in a range of 5-50 mm. In an article having a width in the crotch region of about 100-150 mm, the width of 1-76 mm given for the elastic members suggests that the distance between the right and left primary elastic members may vary over a wide range; that range is likely to include a distance of about 5-50 mm (Fig. 3, col. 10, lines 36-42, col. 13, lines 38-53). Endres teaches that the length of a diaper is about 14-18 inches or 360-460 mm, while the overall width of the absorbent structure is about 4-11 inches or 100-280 mm (Figs 1-2, col. 2, lines 45-67; note that W_{AO} is approximately equal to the overall width of the diaper at the crotch region). This confirms that the

width of the article in the crotch region estimated above for Popp is reasonable. Endres also confirms that it is well known to modify the size of a diaper or other disposable wearing article (col. 2, lines 45-53). Applicant's specification does not disclose that the claimed dimensions serve any stated purpose or solves any particular problem; on the contrary, Applicant's specification indicates that at least some of these dimensions are variable according to the size of the wearer (see specification, paragraphs 51 and 88). See *In re Rose*, 105 USPQ 237 (CCPA 1955). It would have been obvious to one of ordinary skill in the art to modify Popp to include suitable dimensions for the length of the linear portion and the distance between the primary elastic members. In addition, the distance over which the linear portion extends and the distance between the primary elastic members are result effective variables, since they affect the fit and would be expected to vary with the size of the wearer. The discovery of an optimum value of a result effective variable is ordinarily within the ordinary skill in the art. See *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

7. For Claims 12 and 15, Popp teaches the at least one divergent portion including a front divergent portion extending from a front end of the linear portion substantially towards the front end of the absorbent body or the cover sheet (front divergent portions include the part of the innermost leg elastic members 58 closest to front waist edge 38; Figs. 3-9, col. 6, line 52 to col. 7, line 8, col. 13, line 53 to col. 14, line 35).

8. For Claims 13 and 16, Popp teaches the at least one divergent portion including a rear divergent portion extending from a rear end of the linear portion substantially towards the rear end of the absorbent body or the cover sheet (rear divergent portions

include the part of the innermost leg elastic members 58 closest to back waist edge 39; Figs. 3-9, col. 6, line 52 to col. 7, line 8, col. 13, line 53 to col. 14, line 35).

9. For Claims 14 and 17, Popp teaches the at least one divergent portion including front and rear divergent portions extending from opposite front and rear ends of the linear portion towards the respective front and rear ends of the absorbent body or the cover sheet (front divergent portions include the part of the innermost leg elastic members 58 closest to front waist edge 38; rear divergent portions include the part of the innermost leg elastic members 58 closest to back waist edge 39; Figs. 3-9, col. 6, line 52 to col. 7, line 8, col. 13, line 53 to col. 14, line 35).

10. For Claim 18, Popp teaches the cover sheet including an outer cover sheet and a skin-side cover sheet, with the right and left primary elastic members being attached in the stretched state between the outer cover sheet and the skin-side cover sheet with the outer cover sheet and the skin-side cover sheet being bonded to one another in a superimposed manner (outer cover sheet is outer cover 40; skin-side cover sheet is bodyside liner 42; innermost leg elastic 58 is bonded between them as shown in Figs. 7-9; Figs. 3 and 7-9, col. 6, lines 5-55, col. 10, line 43 to col. 12, line 12).

11. For Claim 19, Popp teaches all of the right and left primary elastic members being between the outer cover sheet and the skin-side cover sheet (all of the innermost leg elastics 58 are between outer cover 40 and bodyside liner 42; Figs. 3 and 7, col. 6, lines 5-55, col. 8, line 32 to col. 11, line 40, col. 13, line 32 to col. 14, line 35).

12. For Claim 20, Popp teaches the cover sheet having an outer surface opposite the skin-side surface, the right and left primary elastic members being bonded in their

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stretched state to the outer surface of the cover sheet so that substantially all of each of the right and left primary elastic members is attached to the outer surface of the cover sheet (primary elastic members are leg elastic members 58, cover sheet is bodyside liner 42 and outer cover 40, Figs. 3, 8 and 9, col. 11, lines 24-30).

13. For Claim 21, Popp teaches the cover sheet being a skin-side cover sheet (cover sheet is bodyside liner 42 and outer cover 40, Figs. 3 and 7-9, col. 11, lines 24-65).

Popp teaches the disposable wearing article including an outer cover sheet superimposed on the outer surface of the skin-side cover sheet and bonded to the skin-side cover sheet so that essentially all of the right and left primary elastic members are between the skin-side cover sheet and the outer cover sheet (outer cover sheet is outer cover 40, Figs. 3 and 7-9, col. 6, lines 5-55, col. 10, line 43 to col. 12, line 12).

14. For Claims 22 and 23, the article of Popp is fully capable of having its divergent raised portion formed by the action of the contractile force of the primary elastic members in the divergent portion independent of forces exerted by the wearer (divergent raised portion includes the area between the innermost leg elastic members 58 closest to edges 38 and 39; Figs. 3-9, col. 6, line 52 to col. 7, line 8, col. 13, line 53 to col. 14, line 35).

15. For Claim 24, Popp teaches no elastic members bonded in a stretched state to the cover sheet at locations between the right and left primary elastic members (Figs. 3-9, col. 6, line 32 to col. 7, line 7, col. 8, lines 32-65; note that Popp does not teach elastic or bonding process for containment flaps 46).

16. For Claim 26, Fig. 3 of Popp suggests that the linear raised portion has a dimension along the front-to-rear direction that exceeds a length of either the front and rear divergent portions along the front-to-rear direction. Popp does not expressly teach the lengths of the linear raised portion or the front and rear divergent portions. In light of the proportions shown in Fig. 3 of Popp, it would have been obvious to one of ordinary skill in the art to modify Popp to include the linear raised portion having a dimension along the front-to-rear direction that exceeds a length of either the front and rear divergent portions along the front-to-rear direction.

17. For Claim 27, Popp teaches the divergent portion of the first primary elastic member extending to the first side of the absorbent body and the divergent portion of the second primary elastic member extending to the second side of the absorbent body (absorbent body includes absorbent assembly 44; Figs. 1-6, col. 6, line 6 to col. 7, line 8, col. 8, lines 32-65).

18. For Claim 28, Popp teaches a linear right secondary elastic member bonded in a stretched state to the cover sheet of the absorbent body at a location between the right primary elastic member and the right side of the absorbent body and a linear left secondary elastic member bonded in a stretched state to the cover sheet of the absorbent body at a location between the left primary elastic member and the left side of the absorbent body, the right and left secondary elastic members extending parallel to the linear portions of the right and left primary elastic members, the secondary elastic members having opposite front and rear ends spaced from the front and rear divergent portions of the primary elastic members (secondary elastic members are the middle leg

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elastic member 58 on each side; Figs. 1-6, col. 6, line 31 to col. 7, line 38, col. 8, line 32 to col. 10, line 21).

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **PAULA L. CRAIG** whose telephone number is (571)272-5964. The examiner can normally be reached on M-F 8:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on (571) 272-1115. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Paula L Craig
Examiner
Art Unit 3761

/P. L. C./

/Tatyana Zalukaeva/
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